

## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER POR PATENTS PO Box 1450 Alexasokan, Virginia 22313-1450 www.nepto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/763,975	01/22/2004	Brian J. Cox	388700-058B	7891	
37374 INSKEEP INT	7590 11/26/200 TELLECTUAL PROPE		EXAM	IINER	
2281 W. 190TH STREET			SEVERSO	SEVERSON, RYAN J	
SUITE 200 TORRANCE.	CA 90504		ART UNIT	PAPER NUMBER	
,			3731		
			NOTIFICATION DATE	DELIVERY MODE	
			11/26/2008	EL ECTRONIC	

## Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

inskeepstaff@inskeeplaw.com

Commissioner for Patents United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/763,975 Filing Date: January 22, 2004 Appellant(s): COX, BRIAN J.

> Shane S. Swanson For Appellant

**EXAMINER'S ANSWER** 

This is in response to the appeal brief filed 04 September 2008 appealing from the Office action mailed 21 February 2008.

Page 2

Art Unit: 3731

#### (1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

### (2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

#### (3) Status of Claims

The statement of the status of claims contained in the brief is correct.

#### (4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

## (5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

## (6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

### (7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

## (8) Evidence Relied Upon

6,231,597	Deem et al.	5-2001
5,234,456	Silvestrini	8/1993

Art Unit: 3731

#### (9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 23-28, 40, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deem et al. (6,231,597) in view of Silvestrini (5,234,456).

Deem et al. disclose a device that is a support structure (see figure 4) sized for placement at an aneurysm (see figure 11B). The support structure has a bridge portion or occlusion region (15, see figure 1) that spans the neck of the aneurysm (see figure 11B). The support structure has an open configuration (see figure 4). The bridge or occlusion portion includes a reactive material (102) that helps promote clotting (see column 5, lines 49-55), which restricts flow of blood into the aneurysm.

However, the embodiment of Deem et al. described above does not disclose the support structure is non-tubular. Attention is drawn to figure 13 of Deem et al., which shows a support structure that does not form a complete loop (see column 8, lines 8-17) which would be beneficial because the support structure does not obstruct as much of the lumen, thereby reducing the resistance to blood flow through the area in which the support structure is placed. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the embodiment in figures 4 and 11B of Deem et al. with the support structure that does not encompass the entire circumference of the lumen in the manner taught in figure 13 so as not to obstruct as much of the lumen, thereby reducing the resistance to blood flow through the area in which the support structure is placed.

Art Unit: 3731

Further regarding claim 23, Deem et al. disclose substantially identical embodiments in figures 12 and 13, wherein the only difference is the end portions extend around the entire circumference of the lumen in figure 12 and do not in figure 13. This is further evidence that the support structure can perform equally well configured in either fashion and there would be no disadvantage to modifying the embodiment of figures 4 and 11B to have the end portions extend only about a portion of the circumference of the lumen.

Further, the reactive material of Deem et al. does not expand when in a reacted state. Attention is drawn to Silvestrini, who teaches a stent or similar structure (for example, see figure 3) can be partially made of a material that is inert or solid (28) and partially made of a material that is expandable (26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the covering (102) of Deem et al. of the hydrophilic material (26) of Silvestrini to allow the reactive material to expand and help occlude the aneurysm neck. In addition, Examiner asserts that it would have been obvious to replace the cover (102) of Deem et al. with the hydrophilic material (26) of Silvestrini to help occlude the neck of an aneurysm. Such a substitution would have the hydrophilic material (26) of Silvestrini woven about the support structure of Deem et al.

Regarding claims 24, 25 and 41, the arced configuration of Deem et al. is curved and coiled (see figure 4) and conforms to the lumen it is placed in (see figure 11B).

Regarding claim 26, the support structure of Deem et al. includes a sinusoidal body portion (elements 14 form a sinusoidal pattern, see figure 4).

Art Unit: 3731

Regarding claim 27, the sinusoidal pattern of Deem et al. is only disposed in the bridge portion, which lies between the opposing ends of the support structure.

Regarding claim 28, the bridge portion of Deem et al. includes the reactive material (102, see figure 4).

#### (10) Response to Argument

Appellant argues the rejection is improper because a rationale underpinning why the appellant's invention was obvious was not articulated. Appellant alleges only conclusory statements were made as to the obviousness of the invention. However, the final rejection clearly states the advantage of using the material of Silvestrini, particularly that an expandable material is capable of expanding and further helping to occlude an aneurysm neck. An expandable material can expand and conform to the structural shape that the material is deployed in. In this case, the expandable material, when placed on the stent structure of Deem et al., can expand and conform more completely to the vessel walls and the aneurysm opening than a material that is non-expandable.

Examiner notes that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Therefore, selecting a known material (the expandable material taught by Silvestrini) on the basis of its suitability for the intended use (for use with stents) is a matter of obvious design choice.

Appellant alleges the Deem et al. cover is a "solid or non-perforated cover" (see page 7 of the Appeal Brief). However, Examiner finds no support for such an assertion.

Deem et al. merely disclose a cover and are silent as to whether the cover is solid or

Art Unit: 3731

impermeable. To the contrary, the cover acts as a scaffold for endothelial growth that excludes the aneurysm from the vessel (see column 7, lines 44-46 of Deem et al.). This makes clear that the cover does not entirely obstruct the aneurysm alone, it merely encourages endothelial growth across the aneurysm mouth, with the growth providing the obstruction characteristics. Therefore, by replacing a non-expandable cover with an expandable cover, the cover is capable of providing added obstruction capability to prevent blood flow into the aneurysm while still allowing for endothelial growth.

In response to appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the invention was made, and does not include knowledge gleaned only from the appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Appellant argues making the proposed combination improperly changes the principle operation of the prior art device. However, Examiner at no point has suggested the stent of Deem et al. be used for any purpose other than deployment in a blood vessel at the site of an aneurysm. Further, Examiner at no point suggested that a membrane that necessarily accompanies the filler material of Silvestrini be omitted from the combination. To the contrary, Examiner proposed using the expandable material of Silvestrini (which necessarily includes the filler material and the membrane).

Art Unit: 3731

Appellant argues making the cover of Deem et al. with the material of Silvestrini would cause a decrease in the internal diameter of the stent because of the expansion of the cover material. However, Silvestrini at no point discloses or teaches the material, when expanded, would occlude the internal diameter of the stent. Therefore, appellant has provided no factual evidence to support this argument.

#### (11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Rvan Severson/

Examiner, Art Unit 3731

Conferees:

/Todd E Manahan/

Supervisory Patent Examiner, Art Unit 3731

Todd Manahan

/Tom Hughes/ TQAS, TC 3700